

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
30 June 2005 (30.06.2005)

PCT

(10) International Publication Number
WO 2005/059042 A2

(51) International Patent Classification⁷: **C09D 5/02**,
167/00, 167/08, B01F 17/00

Shankarsa [IN/GB]; 34 Apsley Way, Ingleby Barwick,
Cleveland TS17 5GD (GB).

(21) International Application Number:
PCT/GB2004/005240

(74) Agents: **RALPH, Julie, Diane** et al.; Uniqema Intellectual
Property Dept., Wilton Centre, Wilton, Redcar, Cleveland
TS10 4RF (GB).

(22) International Filing Date:
15 December 2004 (15.12.2004)

(81) Designated States (*unless otherwise indicated, for every
kind of national protection available*): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0329178.8 17 December 2003 (17.12.2003) GB

(84) Designated States (*unless otherwise indicated, for every
kind of regional protection available*): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO,
SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN,
GQ, GW, ML, MR, NE, SN, TD, TG).

(71) Applicants (*for all designated States except US*): **IM-
PERIAL CHEMICAL INDUSTRIES PLC** [GB/GB];
20 Manchester Square, London W1U 3AN (GB).
UNICHEMA CHEMIE BV [NL/NL]; Buurtje 1,
NL-2802 AA Gouda (NL). **ICI AMERICAS INC**
[US/US]; 10 Finderne Avenue, Bridgewater NJ 08807
(US).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): **MANAMEE,**
William, Harry [US/US]; 704 Elmtree Lane, Claymont,
DE 19703 (US). **BLEASE, Trevor, Graham** [GB/GB]; 5
Abbey Close, Stockton on Tees, Cleveland TS19 7SP (GB).
GRADE, Johny, Denis [BE/BE]; Begijnenblokstraat 19,
B-3320 Meldert (BE). **BEVINAKATTI, Hanamanthsa,**

Published:

— *without international search report and to be republished
upon receipt of that report*

*For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.*

(54) Title: SURFACTANT

(57) Abstract: A compound of the formula $R^1 \cdot [(AO)_n \cdot R^2]_m$ (I) where: R^1 is the residue of a group having at least m active hydrogen atoms; AO is an alkylene oxide residue; each n is independently from 1 to 100; m is at least 2; and each R^2 is independently H, a C_1 to C_{21} hydrocarbyl, or an acyl group $-OC \cdot R^3$, where R^3 is a C_1 to C_{21} hydrocarbyl group, wherein on average greater than one of the R^2 groups is or comprises a C_4 to C_{21} hydrocarbyl group comprising at least two ethylenic double bonds. The compounds are particularly suitable for use in preparing aqueous emulsions or dispersions of resins and polymers, especially alkyd resins.



WO 2005/059042 A2